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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/084,184 | 02/28/2002 | Masayuki Miyamoto | 1248-0579P | 4910 |

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EXAMINER

CHOE, HENRY


ART UNIT PAPER NUMBER

2817

DATE MAILED: 04/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

g/m

| | | | |
|------------------------------|--------------------------------------|---------------------------------|---|
| Office Action Summary | Application No. 10/084,184 | Applicant(s) Miyamoto | |
| | Examiner Henry Choe | Art Unit 2817 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 24, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above, claim(s) 3-44 and 46-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Mar 24, 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other: _____

Art Unit:

DETAILED ACTION

Response to Election

1. Applicant provisionally elected the species III with traverse. Applicant also designated that the claims 1, 2, 45 and 46 read on specie III. Examiner disagrees with this statement. Claim 46 clearly reads on specie VI (Fig. 8) since the limitations of the claim 46 include “an auxiliary current control transistor which makes up a current mirror” which is clearly shown in Fig. 8 of the drawing. Therefore, it is concluded that the claims 3-44 and 46-54 are considered non-elected claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwata

(Figs. 1 and 2).

Regarding claim 1, Iwata (Fig. 1) discloses a variable gain amplifier circuit comprising an amplifying transistor (E1) which amplifies an input signal (IN1, IN2), and a current path control section (100) which controls a size of the amplifying transistor (E1) and a path (I1) of a current through the amplifying transistor (E1).

Art Unit:

Regarding claim 2, wherein the current path control section (100) includes a current control transistor (Mc1 in Fig. 2 of Iwata) which controls a current flow through the amplifying transistor (E1), and a plurality of unit circuits (first unit circuit: E1, Q1, M1, Qc1, Mc1; second unit circuit: En, Qn, Mn, Qcm, Mcm).

Regarding claim 45, the current path control section (100) which varies a size of the amplifying transistor (E1) and controls and maintains a current flow through the amplifying transistor (E1) at a constant level (see abstract).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (6,201,443; 4,795,916) are the differential amplifiers with the variable gain control circuits.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (703) 305-0576.



Name: Henry Choe

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